

REMARKS

Claims 9-24 are pending in the present application. Claim 9 has been amended. No new subject matter is added. It is respectfully submitted that this response is fully responsive to the Final Office Action dated February 26, 2009.

Claim Rejections - 35 U.S.C. §103

Claims 9-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Applicants' disclosed prior art (hereafter "APA").

Applicants disagree with the Examiner's characterization of the APA and the pending claim language. However, to expedite prosecution, Applicants herein amend claim 9 to clarify the subject matter of the claimed invention. In view of this amendment and the following remarks, Applicants request reconsideration of the rejection of claims 9-24.

In rejecting the independent claims, the Examiner acknowledged that the APA does not teach the setting value having a power different from a center value of the predetermined intensity variable range (the APA sets the value at P_{cent}, fig. 2, S13). However, the Examiner asserted that it would have been obvious to adjust the APC setting value to be a value other than the central power value as a matter of engineering design choice, which would allow for increased, or decreased, power to be used during varied operating conditions.

Applicants respectfully disagree. The control range of the conventional device described in the background section of this application is represented by a point, not a segment or a setting range. As shown in Fig. 3A, the conventional technique can determine the setting values, as long

as the controlling point determined through (procedure detailed in Fig. 2) is located within the temperature variable range. If the controlling point is not located within the temperature variable range, as shown in Fig. 3B, the setting value cannot be determined. *See* Page 7 of specification. Therefore, because the setting value is represented by a point, the conventional laser module can not be operated under the claimed conditions. Thus, even if one were to modify the conventional device in the manner suggested by the examiner (*i.e.*, adjusting the APC setting value to be a value other than the central power value), it would not result in the claimed invention because it would not include a control range that is represented by a segment of values.

Furthermore, as explained below, Applicants submit that the Examiner's rejection is impermissibly based on hindsight.

Fig. 2 of the present application shows a conventional sequence. At step S13, the center P_Cent of the power variable range is set, and the wavelength tuning routine I is executed by changing the temperature. When the control goes beyond the predetermined temperature variable range, it is determined at step S25 that the laser diode of concern is defective. The conventional sequence does not have or suggest at least the following:

(a) an optimum power intensity setting range that maintains the predetermined *wavelength and fails within a* predetermined power intensity variable range";

(b) an optimum temperature setting range that maintains the predetermined wavelength and falls within a predetermined temperature variable range; and

(c) a setting value generating unit that generates the setting value based on the optimum power intensity setting range and the optimum temperature setting range.

Regarding (a), the Examiner stated in the Office Action that the optimum power intensity setting range is illustrated in Fig. 3A. However, this statement is incorrect. Figs. 3A and 3E illustrate setting values to be determined in accordance with the flowchart of Fig. 2 (see page 11, lines 20-21). The flowchart of Fig. 2 does not have any step to define the optimum power intensity setting range but uses only the central value of the power intensity variable range. The APC of Fig. 2 is used to merely set the central value of the power intensity variable range. The Fig. 3A illustrates only the predetermined power intensity variable range. The flowchart of Fig. 2 does not have any suggestion to define the optimum power intensity *setting range*. The flowchart of Fig. 2 fails to show or suggest any motivation to define the optimum power intensity setting range and fails to teach or suggest any way to modify the flowchart of Fig. 2 to define the optimum power intensity setting range that maintains the predetermined wavelength and falls within a predetermined power intensity variable range.

Regarding (b), the Examiner stated in the Office Action that the optimum temperature setting range is illustrated in Fig. 3A. However, this statement is incorrect. The flowchart of Fig. 2 does not have any step to define the optimum temperature setting range that maintains the predetermined wavelength and falls within a predetermined temperature variable range. Fig. 3A illustrates only the predetermined temperature variable range. The flowchart of Fig. 2 does not have any suggestion to define the optimum temperature setting range. The flowchart of Fig. 2 fails to show or suggest any motivation to define the optimum temperature setting range and fails to teach or suggest any way to modify the flowchart of Fig. 2 to define the optimum temperature setting range.

Regarding (c), the Examiner stated in the Office Action that the setting value generating unit corresponds to #120 in Fig. 1. However, this statement is incorrect. Fig. 2 fails to define the optimum power intensity setting range and the optimum temperature setting range. Thus, #120 in Fig. 1 does not handle the optimum power intensity setting range and the optimum temperature setting range, and does not function as the setting value generating unit.

Consequently, the claimed invention differs from the prior art in the above-described differences (a) through (c) in addition to the Examiner's admitted difference set forth at page 5 of the Office Action, wherein the Examiner stated "It would have been obvious to one of ordinary skilled in the art at the time of the invention to adjust the automatic power control (AFC) setting value to be a value other than the central power value as a matter of engineering design choice, which would allow for values of increased, or decreased, power to be used during varied operating conditions". Even if a value other than the central power value had have been as a matter of engineering design choice, it would not have been as a matter of design choice to define "range" of optimum power intensity and "range "of optimum temperature range. It would not have been obvious by those skilled in the art to modify the flowchart of Fig. 2 to define the optimum power intensity range and the optimum temperature range on the basis of a matter of engineering design choice of a value other than the central power value and to obtain the setting value based on the optimum power intensity setting range and the optimum temperature setting range on the basis of a matter of engineering design choice of a value other than the central power value.

Accordingly, Applicants request reconsideration of the rejection of claims 9-24.

Conclusion

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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